ABSTRACT

We describe an improved method for generating sizable numbers of mature dendritic cells from nonproliferating progenitors in human blood. The first step or "priming" phase is a culture of T cell depleted mononuclear cells in medium supplemented with GM-CSF and IL-4 to produce immature dendritic cells. The second step or "differentiation" phase requires the exposure to dendritic cell maturation factor such as monocyte conditioned medium. Using this two-step approach, substantial yields are obtained. The dendritic cells derive from this method have all the features of mature cells. They include a stellate cell shape, nonadherence to plastic, and very strong T cell stimulatory activity. The mature dendritic cells produced according to this invention are useful for activating T cells.